

**PATENT APPLICATION**  
**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q60875

David DARRAS, et al.

Appln. No.: 09/647,005

Confirmation No.: 3841

Filed: September 26, 2000

Group Art Unit: 1772

Examiner: Michael C. MIGGINS

For: A CONTAINER WITH A COATING OF BARRIER EFFECT MATERIAL, AND  
METHOD AND APPARATUS FOR MANUFACTURING THE SAME

**RECEIVED**  
**OCT 01 2004**  
**OFFICE OF PETITIONS**

**AMENDMENT UNDER 37 C.F.R. § 1.114(c)**

**MAIL STOP RCE**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Concurrent with the filing of a Petition to Withdraw Application from Issuance in  
accordance with 37 C.F.R. § 1.313(a) and (c)(2) and Request for Continued Examination (RCE)  
submitted herewith, please amend the above-identified application as follows:

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**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. (currently amended): A container having a heterogeneous structure, comprising a material with a barrier effect and a polymer material, wherein the material with a barrier effect is an amorphous carbon material with a polymer tendency which is applied as a coating on a substrate made of the polymer material, said amorphous carbon material with a polymer tendency contains CH, CH<sup>2</sup> and CH<sup>3</sup> bonds in the proportions of ~~25, 60 and 15~~ 15, 60 and 25, respectively, and the proportions of the electronic states sp<sup>3</sup>, sp<sup>2</sup> and sp are 53, 45 and 2, respectively.
2. (previously presented): A container as claimed in claim 1, wherein the material with a barrier effect is a nano-composite comprising amorphous carbon with a polymer tendency.
3. (previously presented): A container as claimed in claim 2, wherein the material with a barrier effect is a nano-composite comprising an amorphous carbon with a polymer tendency and metal atoms.
4. (previously presented): A container as claimed in claim 1, wherein the coating of material with the barrier effect is less than about 300 Å thick.
5. (previously presented): A container as claimed in claim 4, wherein the coating of material with a barrier effect is between 50 and 1500 Å thick.
6. (previously presented): A container as claimed in claim 1, wherein the polymer material is a polyolefin.

7. (previously presented): A container as claimed in claim 1, wherein the coating of material with a barrier effect is applied to the substrate inside the container.

8. (previously presented): A container as claimed in claim 1, wherein the coating of material with a barrier effect is applied to the substrate on the exterior of the container.

Claims 9-24 (canceled).

25. (previously presented): A container as claimed in claim 1, wherein the container is a bottle or flask.

26. (previously presented): A container as claimed in claim 1, wherein the polymer material is a polyester.

27. (previously presented): A container as claimed in claim 26, wherein the polyester is PET.

28. (previously presented): A container as claimed in claim 26, wherein the polyester is PEN.

29. (previously presented): A container as claimed in claim 1, wherein the material with a barrier effect is applied as a coating on the inner face of said substrate made of the polymer material.

**REMARKS**

As an initial matter, Applicants thank the Examiner for discussing this application on September 27, 2004.

Claims 1-8 and 25-29 are all the claims pending in the application.

Claim 1 has been amended herein. In Claim 1, "25, 60 and 15" has been deleted and replaced with -- 15, 60 and 25 --. Thus, as amended Claim 1 recites that the amorphous carbon with a polymer tendency contains CH, CH<sup>2</sup> and CH<sup>3</sup> bonds in the proportions of 15, 60 and 25.

Applicants submit that the present amendment corrects a typographical error that was made in the Amendment Under 37 C.F.R. § 1.114(c) filed January 12, 2004.

Applicants further submit that the prior art does not teach or suggest a container comprising, *inter alia*, a material with a barrier effect, *i.e.*, an amorphous carbon with a polymer tendency, wherein the amorphous carbon with a polymer tendency contains CH, CH<sup>2</sup> and CH<sup>3</sup> bonds in the proportions of 15, 60 and 25.

In the discussion of September 27, 2004, the Examiner indicated that Claim 1, as amended, would be allowable.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.114(c)  
U.S. Application No. 09/647,005

Q60875

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

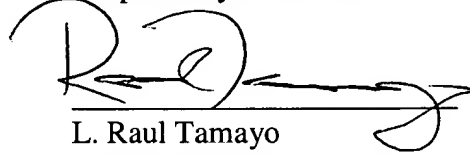
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WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

Respectfully submitted,



L. Raul Tamayo  
Registration No. 47,125

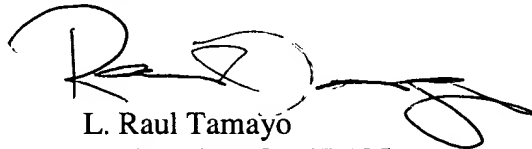
Date: October 1, 2004

**CERTIFICATION OF HAND DELIVERY**

Sir:

I hereby certify that the above identified correspondence is being hand delivered to Examiner Karen Creasy, Petitions Group at the Patent and Trademark Office on October 1, 2004.

Respectfully submitted,



L. Raul Tamayo  
Registration No. 47,125

**REQUEST FOR  
CONTINUED EXAMINATION (RCE)  
TRANSMITTAL**

**MAIL STOP RCE**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Subsection (b) of 35 U.S.C. § 132, effective on May 29, 2000, provides  
for continued examination of an utility or  
plant application filed on or after June 8, 1995

Application Number	09/647,005
Confirmation Number	3841
Filing Date	September 26, 2000
First Named Inventor	David DARRAS
Group Art Unit	1772
Examiner Name	Michael C. MIGGINS
Matter Number	Q60875

Title	A CONTAINER WITH A COATING OF BARRIER EFFECT MATERIAL, AND METHOD AND APPARATUS FOR MANUFACTURING THE SAME
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This is a Request for Continued Examination (RCE) under 37 C.F.R. § 1.114 of the above-identified application.

**1. SUBMISSION REQUIRED UNDER 37 C.F.R. § 1.114**

**RECEIVED**

**OCT 01 2004**

**OFFICE OF PETITIONS**

- a. ☐ Previously submitted
- i. ☐ Please enter and consider the amendment(s)/reply under 37 C.F.R. § 1.116 previously filed on \_\_\_\_\_
- ii. ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on \_\_\_\_\_
- iii. ☐ Other \_\_\_\_\_
- b. ☒ Enclosed
- i. ☒ Amendment/Reply
- ii. ☐ Affidavit(s)/Declaration(s)
- iii. ☐ Information Disclosure Statements (IDS)
- iv. ☐ Petition for Extension of Time
- v. ☒ Other Petition to Withdraw from Issuance under 37 C.F.R. § 1.313(a) and (c)(2)

**2. MISCELLANEOUS**

- a. ☐ Suspension of action on the above-identified application is requested under 37 C.F.R. § 1.103(c) for a period of \_\_\_\_\_ Months
- b. ☐ Other \_\_\_\_\_

**3. FEES**

The USPTO is directed and authorized to charge the RCE statutory fee of \$770.00 and all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this transmittal letter is attached.

**CORRESPONDENCE ADDRESS**

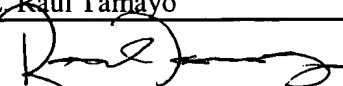
*Direct all correspondence to the address for SUGHRUE MION, PLLC filed under the Customer Number listed below:*

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**23373**

CUSTOMER NUMBER

**SIGNATURE OF ATTORNEY**

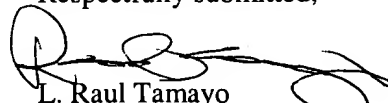
Name	<u>L. Raul Tamayo</u>	Registration No.	<u>47,125</u>
Signature		Date	<u>October 1, 2004</u>

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Respectfully submitted,

  
L. Raul Tamayo  
Registration No. 47,125